

Human Beings in a World of Arrogance and International Machoism

On Monday night, my wife and I had the great pleasure of attending the Fourth of July fireworks celebration at the Inner Harbor together with 200,000 other enthusiastic people. The display and the enthusiasm and friendliness of everyone around us gave us real pride in our country and its system. Unfortunately, upon arrival at home, the headline of the Monday morning Baltimore Sun left us with feelings of confusion and despondency. The destruction of an Iranian passenger plane, accidental or otherwise, began a train of thought that became ever more complex and frightening.

As a major contributing factor in this accident was our old friend, "fossil fuels." Although, as I understand from some presumably knowledgeable friends, the United States is not as heavily dependent on external oil supplies as previously, we are clearly part of a system that must help insure the supply of oil to our Western European allies. Without really direct evidence, I cannot help but suppose that there is constant pressure, from the large petroleum and power organizations, on the military of our country to assure that the oil pipeline (in the present context, by way of tanker) is maintained and protected. Having reached this personal conclusion, I found myself beginning to speculate on the restructuring of the world, drawing heavily on the ideas and predilections of characters such as Thoreau, Thorstein Veblen, and Mahatma Gandhi.

It seems very likely that our current pattern of living will continue for some time. However, there are a number of factors at work which may, in the years to come, change our lifestyle somewhat, and perhaps even our attitudes. In the case of attitudes, I refer to international problems

of war and the preparation for war, involving massive military machines dependent for propulsion on fossil fuel. At the same time, just to make things more complicated, we have the delightful international race to amass as many nuclear weapons as possible and, even more exciting, to develop devices which will constantly circle our earth, hoping for the day that they will have a chance to destroy perhaps as much as ten percent of the nuclear weapons that are shot off from one side against the other.

I would like, for a moment, to home in on these latter devices, particularly the SDI program. In an issue of a pamphlet entitled, "Catalyst," which is put out by the Union of Concerned Scientists in Boston and made up of about 100,000 scientists and citizens concerned with the impact of technology on society, I discovered an interesting analysis of opinions on SDI as expressed by some of the very highest offices in the United States. The Congressional Office of Technology Assessment, for example, suggests that "There would be a significant probability that the first (and presumably the only) time the ballistic system missile were used in a real war, it would suffer catastrophic failure." The American Physical Society, in 1987, concluded that it would take at least a decade of intensive research to determine whether directed energy weapons such as lasers will ever provide the basis for an effective defense. In 1986, a survey of the National Academy of Sciences showed that 98% of its members in disciplines relevant to SDI research concluded that SDI will never provide an "effective defense of the U.S. civilian population" if the Soviets choose to employ countermeasures. The Joint Chiefs-of-Staff confirmed that Phase I in SDI development is designed to stop no more than 30% of the nuclear warheads in an attack. Most striking of all to me, was the estimate of the SDI

Organization that some \$200 billion would be required for the production, space launches, operation, and initial maintenance of such a system. In general, there appeared to be an overwhelming consensus within the American scientific community that a useful defense against nuclear weapons cannot be achieved in the foreseeable future.

To return to energy -- which does lie at the core of our daily lives -- I would think that the diversion of a sizeable fraction of funds being spent on SDI research and other military development would be much more usefully applied to such future sources of energy as nuclear fusion, solar power, geothermal energy, and the like. A great deal of work is proceeding on these possibilities in countries such as Israel where oil is not available and where sun is plentiful, and the same is true in the United States where an active and promising program on nuclear fusion is proceeding at Princeton University and at other centers of physical research in the country.

A nuclear war, and defense against such a war with SDI-type equipment, seems to be ruled out on the basis of the fact that, after the first shot by one side or the other, our species will probably have been condemned to extinction.

At their recent summit meeting, Mr. Gorbachev and President Reagan seemed to be nibbling, however cautiously, at the problem of nuclear, and even general disarmament. Without going whole hog, it does seem reasonable to consider the diversion of large Federal and private funds to the development of alternative sources of energy, thereby perhaps indirectly avoiding the destruction of planes flying over the Persian Gulf and other similar items, and still maintain a comfortable and mobile population.

I once had the pleasure of spending a couple of years in Copenhagen working in a laboratory there, and was enormously impressed with the confort of living and transportation and attitudes in a city that depended almost entirely on electric trolley cars and bicycles. A modest amount of private driving went on as well. Of course, one does need fuel to operate the generators that run trolleys, but not on a very large scale. At present, however, we have become highly dependent on the freedom of movement and elegance of going wherever we want in our own automobiles at 55 m.p.h. or even at 65 m.p.h. with an eye on the rearview mirror.

It might also be wise to begin thinking about how to divert part of the vast sums used for the purchase and maintenance of automobiles, tanks, etc., and the expensive refurbishing of road systems, to the construction of a convenient and comfortable mass transit network, and a return to some kind of organized sharing of a smaller automobile population for carpooling, or whenever feasible, even a return to the good old bicycle.

It is clear that much of what I have said is wishful thinking, not easily achieved, and perhaps naive. However, since most of our global and limited conflicts seem to rely very heavily on petroleum, a decrease in dependence on oil would leave us with more easily manageable difficulties such as ethnic and religious disagreement, finding work for unemployed auto and refinery workers, and, of course, the eternal human hunger for power and possessions.

In my next contribution to this Letter to the Editor section, I propose to furnish some solutions to the dilemmas that I have raised in the foregoing. Following this, we can all return to lives of simplicity, modesty, friendliness, and security.